Department of Energy
Washington, DC 20585

August 30, 2011

MEMORANDUM FOR DISTRIBUTION

FROM: JAMES B. O'BRIEN
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OFFICE OF NUCLEAR SAFETY
OFFICE OF HEALTH, SAFETY AND SECURITY

SUBJECT: Facility Representative Program
Performance Indicators Quarterly Report, April – June 2011

This memorandum summarizes the Facility Representative (FR) Program Performance Indicators Quarterly Report covering the period April through June 2011. Data for these indicators were gathered by Field Elements per Department of Energy (DOE) Technical Standard (STD) 1063-2011, *Facility Representatives*, and reported to Headquarters Program Offices for evaluation and feedback to improve the FR Program.

Highlights from this report:

FR Staffing/Qualification/Oversight Data

- DOE was staffed at 180 FR Full Time Equivalents (FTEs), which is 91 percent of the full staffing level (DOE goal is 100 percent).
- DOE has 81 percent of the required fully-qualified FR staff (DOE goal is > 80 percent).
- DOE FRs spent 77 percent of their time on oversight activities (DOE goal is > 65 percent).

FR Program Highlights

Individual site program highlights are included in the current FR Quarterly Report.

Current FR information and the current and past quarterly performance indicator reports are available at the FR web site at **www.hss.energy.gov/deprep/facrep**. If you have any questions or comments on this report, please contact me at (301) 903-1408 or the DOE FR Program Manager, Earl Hughes, at (202) 586-0065.

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Manager, Savannah River Site Office (NNSA)
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FR Program Sponsors and Steering Committee Members

Facility Representative Performance Indicators April-June 2011

OFFICE OF ENVIRONMENTAL MANAGEMENT (EM)

Location	Analysis FTE	Approved FTE	Actual Staff	% Staff *	Gains / Losses	% Core Qualified *	% Fully Qualified *	% Oversight Time **
CBFO	3	3	3	100	0	100	100	77
ID (EM) [1]	10	10	9	90	-3, +1	90	80	77
OR (EM) [2]	18	17	17	94	0	94	94	67
ORP [3]	15	15	14	93	-1	93	80	78
PPPO [4]	6	6	6	100	0	83	83	75
RL [5]	19	19	17	89	-2	84	84	72
SPRU [6]	2	2	2	100	0	50	0	70
SR [7]	34	30	30	88	+1	82	82	86
WVDP	2	2	2	100	0	100	50	60
EM Totals	**109**	**104**	**100**	**92**	**-4**	**86**	**73**	**74**
DOE GOALS	**—**	**—**	**—**	**100**	**—**	**—**	**>80**	**>65**

Location Key:

CBFO = Carlsbad Field Office
ID = Idaho Operations Office
OR = Oak Ridge Office
ORP = Office of River Protection
PPPO = Portsmouth/Paducah Project Office
RL = Richland Operations Office
SPRU = Separations Process Research Unit
SR = Savannah River Operations Office
WVDP = West Valley Demonstration Project

* % Staff and % Qualified:
The number on board divided by the Analysis FTE.

** % Oversight Time:
The number of hours spent in oversight activities divided by the number of available work hours in the quarter. The number of available work hours includes normal scheduled work and overtime, but not leave or special assignments greater than 1 week assigned.

Notes:

1 One ID (EM) FR transferred to an ID (NE) FR position, one retired, and one was promoted to ID (NE) FR Team Lead. One ID (NE) FR is on detail to ID (EM) facility coverage, augmenting the 8 ID (EM) FRs.
2 One OR (EM) FR was on detail the whole quarter and not counted in the qualification or oversight statistics.
3 One ORP FR transferred to an FR position at the Pacific Northwest Site Office.
4 PPPO hired an FR from within the DOE organization.
5 Two RL FRs were promoted to management positions, one at RL and one at ORP. RL uses 3 additional support service contract personnel for non-nuclear oversight of Recovery Act work.
6 All SPRU FRs are experienced and previously qualified at other sites, but may not be Fully Qualified at SPRU due to short project life.
7 SR hired one new FR from private industry.

EM Facility Representative (FR) Highlights:

- ID (EM): Two FRs provided a total of six weeks of FR oversight at the Separations Process Research Unit (SPRU) in Niskayuna, New York.

- ID (EM): FRs observed several instances of unsafe forklift and man lift operations by a DOE Direct Small Business construction contractor.

- ID (EM): During the review of two final occurrence reports, an FR identified inadequate contractor response to abnormal events and deficient contractor implementing procedures for the Occurrence Reporting and Processing System (ORPS). Event categorization was not timely, FR intervention was required to for prompt fact finding; and the quality of the proposed final occurrence reports was unsatisfactory, requiring FRs to correct proposed causes, causal analyses, corrective actions, and technical editing.

- OR (EM): An FR on a Readiness Assessment (RA) identified work control issues that resulted in the contractor stopping the RA to address the issues.

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EM Facility Representative (FR) Highlights:

- OR (EM): An FR observed improper elevated work and discussed it with the supervisor, who stopped the work and corrected the issues.

- OR (EM): An FR encouraged the contractor to evaluate the relative hazards of heat stress and Tc-99 and Uranium skin contaminations for specific job tasks. As a result, personnel Protective Equipment (PPE) requirements were reduced for many non-intrusive activities involving Tc-99 to relieve heat stress on workers. No changes were made for intrusive work.

- OR (EM): An FR identified several suspect/counterfeit turnbuckles and shackles in two different facilities, and follow-up identified issues with configuration control and receipt inspection. The contractor conducted a major extent-of-condition review to find and correct problems.

- OR (EM): FR observations of two work control issues with subcontractor rigging led to a prime contractor Supplier Quality Evaluation of the subcontractor to ensure institutionalization of corrective actions.

- OR (EM): After two radiological incidents and the identification of radiological deficiencies, an FR at the Hot Cell Project meet with upper contractor management to discuss implementation of corrective actions. Implementation of those actions resulted in a reduction of events and deficiencies.

- ORP: An FR found that the construction contractor provided the same information at safety meetings for Swing Shift as for Day Shift, with no updates for events during the previous shift. As a result of the FR's actions, the contractor now briefs the Swing Shift crew with additional relevant information from Day Shift activities.

- ORP: An FR identified that the contractor conducted Lockout/Tagout safe condition checks out of sequence from the contractor procedure. The contractor determined the problem was not isolated and took corrective action to improve execution of their procedure.

- ORP: FRs identified several instances of rigging and fall protection equipment in use without required inspections.

- ORP: FRs identified several instances of periodic equipment electrical safety checks where the ground checks were not done.

- ORP: FRs identified instances of improper Personnel Protective Equipment use.

- ORP: An FR identified that the contractor did not evaluate facility impacts when a LO/TO was applied in an instrument building, and that the contractor's procedures did not contain adequate guidance for the work release authority to ensure evaluation of impacts and placement of appropriate compensatory measures. Procedure changes to address this situation are forthcoming.

- ORP: An FR identified improper disposition at the laundry of personal protective equipment (PPE) worn during asbestos abatement. This issue led to the contractor immediately investigating to determine if there was a cross contamination potential of asbestos fibers. Resolution of this issue also led to clarification of contractor requirements for asbestos workers and identified the need to synergize the various hazard assessments (radiological, chemical, asbestos, etc) into a concise hazard analysis eliminating the confusion about PPE requirements for the field work supervisor.

- ORP: An FR observed workers on a hanging scaffold about 50 feet above the floor, continuing work after their access lift had been removed. The contractor work processes allowed this practice, stranding workers without a fire escape in violation of the National Fire Protection Association Life Safety Code.

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EM Facility Representative (FR) Highlights:

- ORP: An FR identified significant weaknesses in the contractor's hearing conservation program, including inconsistencies in hazard controls, worker non-compliance with specified hazard controls, and lack of Personnel Protective Equipment (PPE) availability. The issue led to the contractor instituting a comprehensive restructuring of their hearing conservation program to include routine surveying, worker retraining, and management involvement in enforcing appropriate PPE usage.

- RL: Plutonium Finishing Plant FRs worked with DOE-RL Radiological Control Subject Matter Experts to issue a reactive surveillance report identifying significant radiological control planning and execution deficiencies.

- RL: FRs identified that Specific Administrative Control verifications for control of combustibles were not being documented in accordance with specified requirements.

- RL: FRs identified several issues with component labeling and agreement between danger tags and actual component labels.

- RL: An FR identified that drawings did not reflect field conditions and there was no configuration management baseline in place.

- RL: FRs identified several problems with radiological work planning and execution.

- RL: An FR identified continued poor performance in occurrence reporting related to miss-categorization.

- RL: An FR identified that the Fire Hazard Analysis determinations at times were not consistent with each other. An example was the Heat Release Rates utilized in wood pallet fire accident analyses at two different facilities. The contractor committed to fixing this error and making FHA standards uniform amongst the FHAs.

- SPRU: One FR arrived in mid June and the other FR is a former FR under contract, who arrived in late June.

- SPRU: Due to the expected short life of the project, DOE-SPRU is evaluating the feasibility of fully qualifying FRs for the short duration of the project.

- SPRU: Following a significant Type B Event in late 2010, the SPRU FRs have made a significant impact on the contractor's work control program administration and implementation.

- SPRU: The FR presence in April and May was augmented by FRs on detail from Idaho.

- SR: Three FRs completed full qualification.

- SR: One FR was recognized for the Best Presentation at the 2011 FR Workshop, and another was a runner-up.

- SR: FRs identified potential seismic design flaws in a temporary steel deck to be used as a construction aid. The Contractor was required to produce calculations and design details to demonstrate the safety of the proposed structures.

- SR: FRs identified issues with radiological housekeeping, uncontrolled operator aids, and improper execution of the procedure development and control system at Savannah River national Laboratory.

- SR: FRs identified inadequate configuration and quality control on software used in a Distributed Control System in operation for ten years.

- SR: FRs identified deficiencies with scaffolding, concrete dust sampling, trenching, personnel protective equipment use, and following procedures.

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EM Facility Representative (FR) Highlights:

- SR: FRs identified unrecognized out-of-specification results on a Technical Safety Requirement surveillance that indicated a backup diesel generator would not have performed its safety function.

- WVDP: The FR served as WVDP Acting Deputy Director for two months.

- WVDP: The Triennial FR Program Assessment was completed in June.

Facility Representative Performance Indicators April-June 2011

OFFICE OF NUCLEAR ENERGY (NE)

Location*	Analysis FTE	Approved FTE	Actual Staff	% Staff *	Gains / Losses	% Core Qualified *	% Fully Qualified *	% Oversight Time **
ID (NE)	9	9	7	78	±1	78	78	79
NE Totals	**9**	**9**	**7**	**78**	±1	**78**	**78**	**79**
DOE GOALS	**—**	**—**	**—**	**100**	**—**	**—**	**>80**	**>65**

* Location Key:
ID = Idaho Operations Office

* % Staff and % Qualified:
The number on board divided by the Analysis FTE.

** % Oversight Time:
The number of hours spent in oversight activities divided by the number of available work hours in the quarter. The number of available work hours includes normal scheduled work and overtime, but not leave or special assignments greater than 1 week assigned.

Notes:

One ID (NE) FR Work Lead was on temporary detail to augment ID (EM) FR staffing. One ID (EM) FR transferred permanently to an ID (NE) FR position

NE Facility Representative (FR) Highlights:

- An FR identified that a Technical Safety Requirement (TSR) Specific Administrative Control (SAC) for fuel movements lacked clear applicability. Not all transfer conditions were covered by the TSR applicability statement, yet the basis for the TSR appeared to broadly cover most situations. The Contractor and DOE-ID agreed that the TSR needed to be revised to more clearly define the operational situations for which the SAC was applicable.

- ID (NE): ATR Complex FRs assessed Conduct of Operations and identified several areas requiring attention.

- ID (NE): ATR Complex FRs identified ambiguities in the Safety Analysis Report requirements for fire protection.

- ID (NE): FRs identified deficiencies in the contractor's implementation procedures for 29 CFR 1910.147 (Lockout/Tagout).

- ID (NE): An FR at the Advanced Test Reactor (ATR) identified that ATR Operations management had a poor understanding of the fire protection requirements and when they must be met during some operations. The safety documentation is also unclear on some fire safety requirements.

Facility Representative Performance Indicators April-June 2011

NATIONAL NUCLEAR SECURITY ADMINISTRATION (NNSA)

Location	Analysis FTE	Approved FTE	Actual Staff	% Staff *	Gains / Losses	% Core Qualified *	% Fully Qualified *	% Oversight Time **
LASO [1]	15	13	12	80	-1	73	73	70
LSO [2]	9	9	8	89	+2	67	67	75
NSO	7	7	7	100	0	86	86	79
PXSO	10	9	9	90	0	90	90	84
SRSO	3	3	3	100	0	100	100	73
SSO [3]	6	6	6	100	0	83	83	83
YSO [4]	9	9	8	89	-2	89	89	74
NNSA Totals	**59**	**56**	**53**	**90**	**-1**	**84**	**84**	**77**
DOE GOALS	**—**	**—**	**—**	**100**	**—**	**—**	**>80**	**>65**

Location Key:

LASO = Los Alamos Site Office
LSO = Livermore Site Office
NSO = Nevada Site Office
PXSO = Pantex Site Office
SRSO = Savannah River Site Office
SSO = Sandia Site Office
YSO = Y-12 Site Office

* % Staff and % Qualified:
The number on board divided by the Analysis FTE.

** % Oversight Time:
The number of hours spent in oversight activities divided by the number of available work hours in the quarter. The number of available work hours includes normal scheduled work and overtime, but not leave or special assignments greater than 1 week assigned.

Notes:

1 One LASO FR was promoted to an Assistant Manager position.
2 Two Future Leaders Program graduates were added to the LSO FR team.
3 Sandia performed a new staffing analysis that resulted in a need for 6 vice the previous 8 FRs.
4 YSO performed a new staffing analysis that resulted in 9 vice the previous 11 FRs. One YSO FR was promoted to an Assistant Manager position and one transferred to an FR position at the Separations Process Research Unit.

NNSA Facility Representative (FR) Highlights:

- LASO: An FR identified poor contractor management oversight of an out-of-service safety system.
- LASO: An FR identified plant equipment (confinement ventilation doors) not credited or maintained that would provide defense-in-depth to several significant facility events.
- LASO: An FR identified unauthorized nano particle work in a facility.
- LASO: Several FRs rotated on month-long assignments as Acting Assistant Manager for Field Operations.
- LASO: The 2009 FR of the Year was promoted to Assistant Manager for Field Operations.
- LSO: During a routine walkthrough, an FR observed wooden pallets being brought into a nuclear facility to prepare low-level waste containers for off-site shipment. The facility's Technical Safety Requirements (TSR) allow only metal waste containers and metal pallets. When the FR notified the contractor of the TSR requirement, the preparation work was moved outside the facility.
- LSO: During an assessment of TSR Specific Administrative Controls, (SAC) an FR identified a number of procedures that were missing a SAC for handling un-encapsulated, non-dispersible plutonium.

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NNSA Facility Representative (FR) Highlights:

- LSO: FRs identified several work control issues, including improper execution of the contractor's work control process, missing exposure controls in documents and improper execution of safety controls and use of Personal Protective Equipment (PPSE) on the job.

- LSO: During a chemical inventory review, an FR identified two hazardous chemicals listed on the inventory but not described in the facility safety basis.

- LSO: An FR found several Lockout/Tagout issues.

- LSO: While assessing Specific Administrative Controls (SAC), an FR identified that the SAC's implementing procedure failed to list combustible loading limits for a number of rooms. The FR also identified that the training required by the procedure was not implemented. These issues were brought to the attention of the contractor, resulting in identification of a Technical Safety Requirement violation.

- NSO: One FR completed site-specific qualification for a facility.

- NSO: FRs validated correction of pre-startup findings for two facility startups.

- NSO: NSO's FR program hosted and supported the annual; Facility Representative/Safety system Oversight Workshop.

- PXSO: An FR led an NNSA Readiness Assessment at the Pantex Plant.

- SRSO: The Senior Facility Representative is on detail as the Assistant Manager for Mission Assurance.

- SSO: The Sandia Pulsed Reactor Facility FR completed an annual assessment of the TSR Surveillance Requirements, including Specific Administrative Controls.

- SSO: The Sandia Pulsed Reactor Facility FR completed a special assessment for a new core configuration.

- SSO: An FR and Subject Matter Expert worked together to investigate two contamination events and ensure that Sandia implements appropriate corrective actions.

- YSO: FRs identified weaknesses in the implementation of Equipment and Systems Status Control.

- YSO: An FR participated in the Nuclear Facility Risk Reduction review for Building 9212.

- YSO: An FR (FR of the Year for 2004) was promoted to Assistant manager for Operations management.

Facility Representative Performance Indicators April-June 2011

OFFICE OF SCIENCE (SC)

Location	Analysis FTE	Approved FTE	Actual Staff	% Staff *	Gains / Losses	% Core Qualified *	% Fully Qualified *	% Oversight Time **
AMES	1	1	1	100	0	100	100	79
ASO	5	5	4	80	0	80	80	80
BHSO	4	4	4	100	0	100	100	79
FSO	2	2	2	100	0	50	50	83
NBL	1	1	1	100	0	100	100	69
OR (SC)	5	5	5	100	0	100	100	81
PNSO [1]	3	3	3	100	+1	100	100	72
SC Totals	**21**	**21**	**20**	**95**	**+1**	**90**	**90**	**78**
DOE GOALS	**—**	**—**	**—**	**100**	**—**	**—**	**>80**	**>65**

Location Key

AMES=AMES Site Office BHSO = Brookhaven Site Office NBL = New Brunswick Laboratory PNSO = Pacific Northwest Site Office
ASO = Argonne Site Office FSO = Fermi Site Office OR = Oak Ridge Office

* % Staff and % Qualified:
The number on board divided by the Analysis FTE.

** % Oversight Time:
The number of hours spent in oversight activities divided by the number of available work hours in the quarter. The number of available work hours includes normal scheduled work and overtime, but not leave or special assignments greater than 1 week assigned.

Notes:

1 PNSO: A fully-qualified FR was hired from ORP, currently completing facility-specific qualifications as a cross-qualification.

SC Facility Representative (FR) Highlights:

- ASO: An FR participated in the facility investigation of an electric shock at the Advanced Photon Source.
- ASO: An FR monitored Argonne Independent Assessments of Radioactive Materials Management (Hazard Categorization) and Conduct of Operations.
- ASO: An FR identified discrepancies in the contractor's Fire Protection Program Description and worked with the contractor to identify a path forward to correct any deficiencies.
- ASO: An FR, serving as a Safety Basis Review Team Leader, is directing the review of several safety basis documents.
- ASO: An FR led a validation team showing that the Argonne Human Factors Safety Management Program is implemented sufficiently to support operations in Greater than Hazard Category 3 nuclear facilities.
- ASO: An FR participated on the Accelerator Safety Working Group to draft a revision to the Accelerator Safety Order (DOE O 420.2).
- ASO: An FR attended National Institute for Occupational Safety and Health (NIOSH) training on *Nanotechnology and Occupational Health*.
- ASO: An FR participated in the facility investigation of an electric shock at the Advanced Photon Source.
- BHSO: An FR participated in the investigation of a BNL employee receiving a minor electric shock during an emergency generator test.
- BHSO: FRs at all facilities completed surveillances of the adequacy of corrective actions. The results serve as a contractor assurance system performance indicator and will be rolled-up into a report and delivered to the contractor.

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SC Facility Representative (FR) Highlights:

- BHSO: An FR participated in the review of hazards associated with increasing the inventory of toxic chemicals for use in experiments. As a result, further contractor analysis is being required.

- NBL: The FR reviewed contractor construction safety oversight forms and noted that oversight activities seem to be narrowly focused on a few areas, and the reviews seem fairly superficial. Contractor management was asked to look into more aggressive construction safety oversight.

- NBL: The FR met with the Lab's Chief Operating Officer to address the issue of Laboratory personnel disregarding construction area signs and entering areas without proper PPE. NBL personnel were counseled as a result.

- NBL: The FR met with the Fire Protection Upgrade Project Manager to discuss lead and asbestos abatement. Walls painted with lead paint were cored for sprinkler pipe installation, releasing lead fines mixed with the core material. Rough calculations indicated the possibility that the fines could be subject to regulation under RCRA. Other discussions covered plans for removing asbestos-containing duct work and coring a lead-lined wall in a former γ-spectography lab.

- OR (SC): FRs conducted 17 joint walkthroughs with Subject Matter Experts (SMEs), continuing the coordination between FRs and SMEs.

- OR (SC): FRs conducted an assessment of ORNL implementation of DOE O 426.1, Personnel Selection, Training, Qualification, and Certification Requirements for DOE Nuclear Facilities.

- PNSO: An FR identified concerns with a temporary charging station for battery powered pallet jacks. Concerns were elevated to Building Manager for resolution.

- PNSO: An FR identified inconsistencies between the Hanford 325 Building Documented Safety Analysis and Emergency Planning Hazards Assessment documents. Comments were provided to the contractor for resolution.

- PNSO: An FR assisted in reviewing completed contractor corrective actions for an inadvertent firearm discharge at the Hanford HAMMER facility in August 2009. FR involvement resulted in the contractor completing a more thorough effectiveness review as a basis for concluding the issues could be recommended for closure.

- PNSO: An FR followed analysis of an event where a plain-clothes Hanford Patrolman pulled a concealed personal weapon for use as a prop in a training class. FR involvement helped bring focus to the lack of appropriate response to the situation by Laboratory staff conducting and attending the class.

- PNSO: An FR discovered a contractor assessment of boating safety completed in January 2011 identified significant issues but with no corrective actions addressed. FR involvement resulted in contractor development of a credible corrective action plan.